



**rockGEAR**™ — RS62103

Rancho Front Control Arm Bracket Kit

Fits 2018 – 2007 Jeep Wrangler JK with 2” – 4” Lift

READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION

Parts List

P/N	DESCRIPTION	QTY.
176817B	Control Arm Bracket, Right	1
176818B	Control Arm Bracket, Left	1
RS94180	Information Pack	1
RS94177	Rollover Warning	1
RS94119	Consumer/Warranty Information	1
RS780281	Rancho Decal	1
R-RM0082-1112	Warranty Tag	1
RS82103	Instructions	1

P/N	DESCRIPTION	QTY.
RS860573	Sub Assy, Front Control Arm	1
RS770139	HHCS, M12-1.75 X 80	3
RS7915	Washer, M12	6
RS7911	Nut, M12-1.75 Top-Lock	3
RS770043	HHCS, M14-2.00 X 100	2
RS770109	Washer, M14	4
RS7877	Nut, M14-2.00 Top-Lock	2



Illustration 1

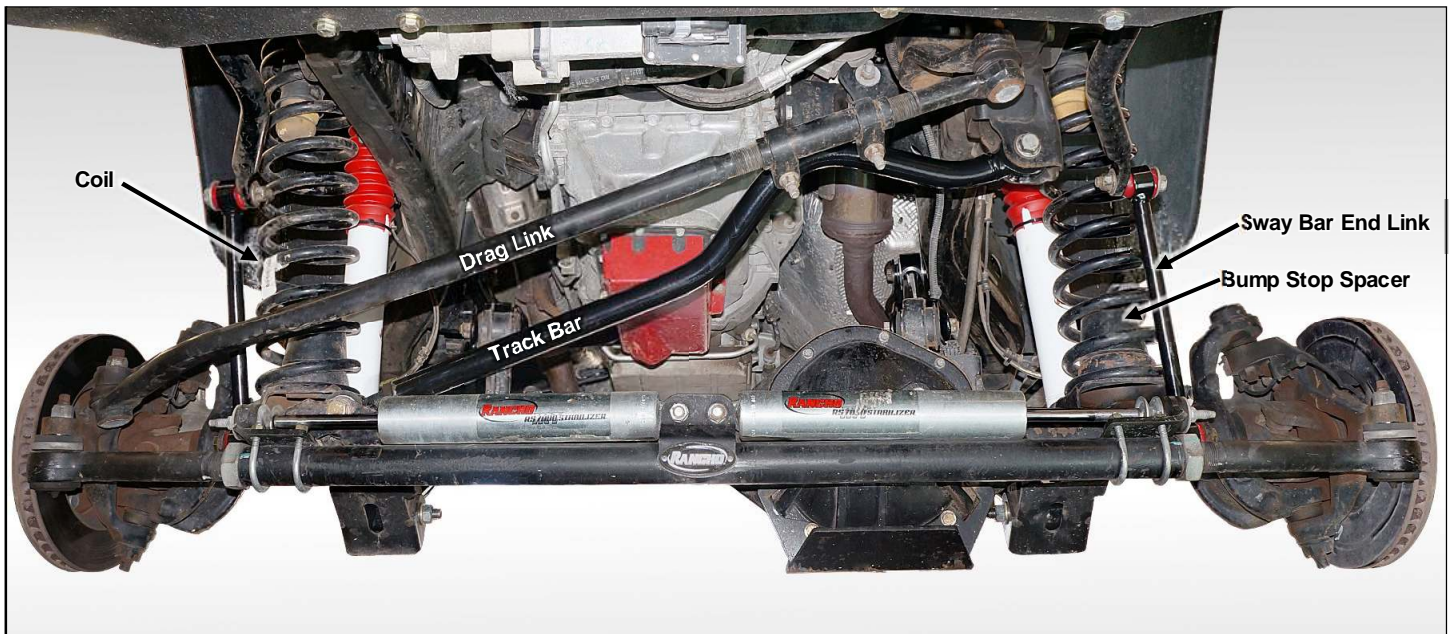


Illustration 2

## ***Install Notes & Required Modifications*** (MUST BE PURCHASED SEPARATELY)

This kit requires at least a 2" lift be installed.

If installing lift at same time as Rancho Front Control Arm Bracket Kit RS62103, follow lift kit manufactures installation instructions to install lift. Install Rancho Front Control Arm Brackets when coil springs are removed from vehicle.

If lift is already installed, Rancho Front Control Arm Brackets may be installed with vehicle on the ground, or with the vehicle up on jack stands or vehicle lift / hoist. Instruction are supplied to remove and install Rancho lifted coil springs. If another manufactures lift kit is installed, follow lift kit manufactures instructions to remove and install coil springs.

- 1)  Park vehicle on a level surface. Set the parking brake and chock rear wheels.

### **COIL SPRING REMOVAL – IF REQUIRED (SEE NOTE ABOVE)**

If lift is installed and you prefer to perform installation with vehicle on the ground, skip to next section "CONTROL ARM DROP BRACKET INSTALLATION".

- 1)  Remove the track bar to frame bracket nut and bolt. See Illustration 2.
- 2)  Raise the front of the vehicle and support the frame with jack stands. Remove the front wheels and set them aside.
- 3)  Support the front axle with a floor jack.
- 4)  Remove the sway bar end links from axle brackets.
- 5)  Remove the shock absorber lower nut and bolt.
- 6)  Remove bolts and separate the brake hoses from the frame rails. If necessary, disconnect any vent hoses and electrical wiring from the axle.
- 7)  Reference mark the drive shaft to the front pinion flange (at axle). Disconnect the drive shaft from the pinion flange. Support drive shaft with a tie wrap or wire.
- 8)  Remove the bump stop spacer from the axle.
- 9)  Carefully lower the front axle and remove the coil springs. Push down on axle if necessary.

**CAUTION:** Do not allow the front axle to hang by any hoses or cables.

### **CONTROL ARM DROP BRACKET INSTALLATION**

**NOTE:** To keep the front axle from tipping, disconnect the control arms one side at a time only.

- 1)  Remove the driver side upper control arm from the frame and axle brackets. Loosen driver side lower control arm at the frame and axle. Remove the driver side lower control arm from the frame bracket only. See Illustration 3.
- 2)  Insert left control arm bracket RS176818B into the frame brackets. Attach bracket to frame with the original hardware. Tighten lower nut and bolt to 125 lb-ft. Tighten the upper nut and bolt to 75 lb-ft. See Illustration 4.



Illustration 3



Illustration 4



Illustration 5

3)  Loosely attach the upper control arm to bracket RS176818B with the 12mm hardware from kit RS860573. Reattach the upper control arm to the axle bracket with the original hardware. Do not tighten until vehicle is at normal ride height.

If control arms do not align with holes in brackets, use a jack under the axle pinion housing or under the differential to slightly rotate axle the desired direction.

Do not lift vehicle off of jack stands.

Use top hole for 2" lifts, 2<sup>nd</sup> hole down for 3" lifts, and 3<sup>rd</sup> hole down for 4" lifts. See Illustration 1.

Because of variations in vehicles and use, you may adjust caster by using a different position. See chart below for recommended positions.

#### UPPER CONTROL ARM POSITION

	OE	1	2	3	4
5"	1.3 / -3.2	3.3 / -1.2	<b>3.8 / -0.7</b>	4.3 / -0.2	6.1 / 1.6
4"	1.7 / -2.8	<b>4.0 / -0.5</b>	<b>4.5 / 0.0</b>	5.6 / 1.1	7.4 / 2.9
3"	2.3 / -2.2	<b>4.5 / 0.0</b>	<b>5.5 / 1.0</b>	6.7 / 2.2	9.0 / 4.5
2"	2.8 / -1.7	<b>5.5 / 1.0</b>	6.5 / 2.0	7.9 / 3.4	10.5 / 6.0
OE	4.5 / 0.0	7.4 / 2.9	8.7 / 4.2	10.6 / 6.1	13.9 / 9.4

TYPICAL CASTER / CHANGE FROM OE

Recommended positions in bold

4)  Attach the lower control arm to bracket RS176818B with the 14mm hardware from kit RS860573. Do not tighten until vehicle is at normal ride height.

5)  Repeat steps 1 through 5 to install right control arm bracket RS176817B on the passenger side. See Illustration 5

**NOTE 2007 – 2011 models: To disconnect the upper control arm from the passenger side frame bracket, the mounting bolt must be cutoff or the exhaust removed. An M12x80mm bolt is supplied in sub assy. RS860818 to replace cut bolt.**

#### COIL SPRING REINSTALLATION

Must be used with lifted coils – sold separately

- 1)  Install original rubber isolator on top of coil spring.
- 2)  Place bump stop spacer inside the coil spring
- 3)  Lower axle if required and insert the spring assembly into the upper pocket and onto the axle pad. Align pig tail with groove in axle pad. See Illustration 6.

**CAUTION:** Do not allow the front axle to hang by any hoses or cables.

- 4)  Attach the bump stop spacer to the axle pad with red Loctite. Torque to 20 lb-ft.
- 5)  Repeat steps 1 through 5 for the other side.
- 6)  Raise front axle and attach shock lower mounts to axle brackets with the original hardware. Torque to 56 lb-ft.

7)  Reattach drive shaft to pinion flange using OE hardware and blue Loctite . Torque to 81 lb-ft.

8)  Reattach vent hose and electrical wiring if necessary.

9)  Attach sway bar end links to axle brackets. Torque to 75 lb-ft.

#### LOWER VEHICLE

1)  Install front wheels and lower vehicle to the ground. Tighten lug nuts to 80-110 lb-ft.

2)  With vehicle on the ground at ride height, tighten lower control arm nuts and bolts to 125 ft. lbs. Tighten upper control arm nuts and bolts to 75 ft. lbs.

3)  Attach track bar to frame mount using OE hardware

4)  Torque track bar bolts to 125 lb-ft.

Note: If track bar does not align with bracket, have an assistant slowly turn steering wheel to align holes.

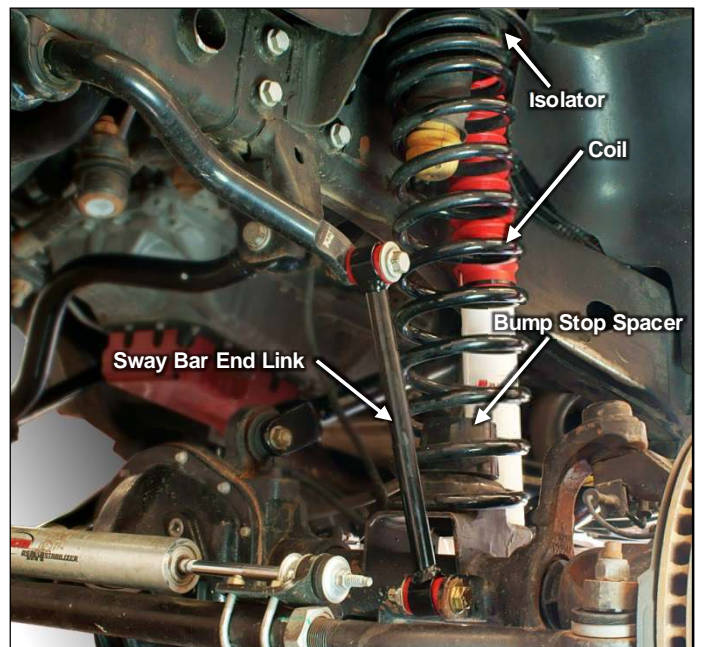


Illustration 6

#### FINAL CHECKS & ADJUSTMENTS

1)  Turn the front wheels completely left then right. Verify adequate tire, wheel, brake hose and ABS wire clearance. Inspect steering and suspension for tightness and proper operation.

2)  With the suspension at maximum extension (full droop), inspect and rotate all axles and drive shafts. Check for binding and proper slip yoke insertion. The slip yoke should be inserted a minimum of one inch into the transfer case and/or transmission.

3)  Ensure that the vehicle brake system operates correctly. If new brake hoses were installed, verify that each hose allows for full suspension movement.

-Continued next page-

- 4)  Readjust headlamps.  
 5)  Have vehicle Aligned to manufacturer's specifications.

Alignment Specifications

Caster	4.6°	± 1.0°
Camber (fixed angle)	-0.25°	± 0.63°
Toe-In (each wheel)	0.15°	± 0.15°
Thrust Angle	0	± 0.15°

Torque Specs

Front Components

Upper Control Arm	75 lb-ft
Lower Control Arm	125 lb-ft
Front Bump Stop Spacer RS176443	20 lb-ft
Shock Absorber Lower Mount	56 lb-ft
Front Drive Shaft to Pinion Flange	81 lb-ft
Sway Bar end Link	75 lb-ft
Track Bar	125 lb-ft
Drag Link Adjustment Sleeve Clamp	26 lb-ft
Wheels (Lug Nuts)	110 lb-ft.

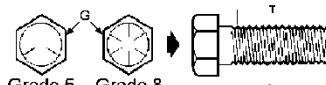
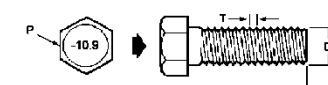
Rear Components

Control Arm (upper and lower)	125 lb-ft
Shock Absorber Upper Mount	23 lb-ft
Shock Absorber Lower Mount	56 lb-ft
Track Bar	125 lb-ft
Sway Bar to Frame	33 lb-ft
Sway Bar End Link to Axle	75 lb-ft
Wheels (Lug Nuts)	110 lb-ft

STANDARD BOLT TORQUE & IDENTIFICATION

INCH SYSTEM			METRIC SYSTEM			
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	Class 10.9	Class 12.9
5/16	15 LB-FT	20 LB-FT	M6	5 LB-FT	9 LB-FT	12 LB-FT
3/8	30 LB-FT	35 LB-FT	M8	18 LB-FT	23 LB-FT	27 LB-FT
7/16	45 LB-FT	60 LB-FT	M10	32 LB-FT	45 LB-FT	50 LB-FT
1/2	65 LB-FT	90 LB-FT	M12	55 LB-FT	75 LB-FT	90 LB-FT
9/16	95 LB-FT	130 LB-FT	M14	85 LB-FT	120 LB-FT	145 LB-FT
5/8	135 LB-FT	175 LB-FT	M16	130 LB-FT	165 LB-FT	210 LB-FT
3/4	185 LB-FT	280 LB-FT	M18	170 LB-FT	240 LB-FT	290 LB-FT

<p>1/2-13x1.75 HHCS</p> <p>D T L X</p> <p>G = Grade Marking (bolt strength)          D = Nominal Diameter (inches)          T = Thread Pitch (threads per inch)</p>	 <p>Grade 5    Grade 8</p> <p>L = Length (inches)          X = Description (hex head cap screw)</p>	<p>M12-1.25x50 HHCS</p> <p>D T L X</p> <p>P = Property Class (bolt strength)          D = Nominal Diameter (millimeters)          T = Thread Pitch (thread width, mm)</p>	 <p>10.9</p> <p>L = Length (millimeters)          X = Description (hex head cap screw)</p>
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